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Solar Evaporation Pond Regulatory Discussion Strategy

Ray Greenberg, Director, Rocky Flats/Albuquerque Production Division, EM-453, HQ

This correspondence transmits the strategy for presentation of Solar Evaporation Pond (SEP) options and funding constraints to EPA, Region VIII and the Colorado Department of Health. This is in response to item 4, Attachment 1 (Short-Term Corrective Actions) to Mr. Leo Duffy's letter, dated December 1, 1992, concerning SEP corrective actions.

The attached strategy has been developed to provide for regulatory understanding and concurrence for key programmatic decisions specifically related to the SEP Project. These decisions will dramatically affect the programmatic reassessment currently underway and the rebaselining effort, planned for completion by mid-February 1993. Based on the critical nature of regulator input to the DOE decision process, approval of the attached strategy is requested by December 18, 1992. This SEP strategy has been developed to be consistent with the "Plan for Discussion with the Regulators of Enhanced Performance and Amendment of the Rocky Flats Interagency Agreement Milestone Schedule." However, the SEP strategy must be approved and dialogue proceed independently of the larger IAG discussion document if SEP rebaselining efforts are to proceed on schedule.

Please direct any questions on the attached strategy to me at (303) 966-7846.

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cc:
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ADMIN RECORD

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STRATEGY FOR SOLAR EVAPORATION POND REGULATOR DISCUSSIONS

INTRODUCTION

The Solar Evaporation Pond (SEP) Project is a major project encompassing various regulatory issues across several subprojects. These issues are in the form of requirements from laws or implementing regulations, DOE commitments from agreements, and local regulator objectives and sensitivities. Some regulator issues have also evolved from the past history of the project and missed commitments and milestones. In addition, several planning and technical assumptions have changed significantly since project inception. The most important of these was notice from Nevada Operations, confirmed by EM-453, that the Nevada Test Site would not be accepting low-level mixed waste from Rocky Flats until FY 1998. The strategy is intended to result in:

- Complete understanding by the regulators (Colorado Department of Health (CDH) and Environmental Protection Agency, Region VIII (EPA)) regarding changed assumptions and planning data and the resulting project impacts.
- Regulator consensus on a plan to achieve regulatory compliance and meet all project objectives.
- Regulator approval of key document changes and compliance interpretations.
- Allocation of budgets and regulator-approved adjustment of milestones consistent with the plan.
- Continuing dialogue with regulators on project issues and status.

METHODOLOGY

Information exchange is the first step in implementing the strategy. The regulators will need to understand the background of the program and lessons learned from the past failures to appreciate DOE's current plans and positions. Equally important is a common understanding by each of the regulators of the technical data which drives the options. The main goal of the information exchange is to ensure the regulators fully understand the issues and complexities of the project so that the options can be evaluated on an objective, technical basis. This understanding is also necessary to support comparisons between options and the impact on other SEP subprojects.

Once the regulators have a clear understanding of the project background, lessons learned, and current status, then issues and options can be discussed. The issues and options will be addressed as they relate to each of the project objectives. The discussion will provide for a clear match between a regulatory requirement or issue and the project option which addresses the requirement. Each option presented will include discussion on the degree of regulatory compliance, proposed schedule, conceptual FY93 cost, conceptual life cycle cost, and relationship to the other SEP subprojects. The goal of the issue and option discussion is to communicate the range of possible approaches and their related impacts and costs as a means to further identify regulator preferences and sensitivities, especially as they may differ between EPA and CDH.

The next step will be the most difficult, achieving consensus on the package of options which best meet all project objectives within fiscal constraints. We intend to persuade the regulators that our preferred approach best addresses the regulatory issues while minimizing technical risk and being fiscally responsible. Past regulator discussions, particularly with CDH, have dismissed budget issues as strictly a Federal compliance problem. We will address this problem in three ways. First, the life-cycle cost comparisons can also be compared with the full environmental restoration scope at Rocky Flats over the next ten years. CDH realizes that their is some limit to the total amount of money and overly restrictive and costly SEP options will delay progress on total site restoration. Secondly, the DOE effort to request supplemental funding fully satisfies the requirements of CERCLA even if denied, and therefore induces the regulators to work with the DOE to find the best solution within budget limitations. Finally, cost savings actions using comparisons with industry to help target the worst excesses, will persuade the regulators that the DOE is taking action to reduce costs in the SEP project and across the entire environmental restoration program. The goal of the consensus step is to provide a basis for planning which will provide the DOE with high confidence of regulator acceptance of the final rebaselined project plan.

With consensus on the project options, the DOE can move forward toward finalizing a rebaselined scope, schedule, cost, and management plan. In parallel, specific document changes which require regulator approval will be prepared and submitted. Supplemental funding documentation will also be prepared and

submitted. These efforts should proceed fairly smoothly with the consensus of approach established previously. This step in the regulator discussions will likely stretch out over several months as many of the documentation issues, such as delisting and wastepile storage, will require detailed interchange at the technical staff level. The goal of this step is to establish and document all aspects of the project and begin ongoing change and configuration control.

As a final step we anticipate continuing dialogue with the regulators on progress, setbacks, or emerging issues. This would likely be part of a monthly or quarterly update with the goal of continued awareness and involvement.

SPECIFIC ISSUES

There are many issues which are important to a comprehensive project rebaseline and ultimate project success. The key issues and proposed discussion points are summarized below.

Utilize horizontal and slant drilling for characterization. This is needed to minimize further delays in the characterization required by the Interagency Agreement (IAG). It will require regulator approval of a minor change to the approved Operable Unit 4 RFI/RI Workplan. DOE will also seek to reduce the total number of boreholes from the current number of 49 and utilize techniques used at Savannah River to reduce unit borehole costs. We expect agreement with use of horizontal and slant drilling and reduced unit cost techniques, but resistance on major reductions of boreholes as they were already reduced from 70 to 49. The presence of several sandstone channels in the clay-rich bedrock under Operable Unit 4 is the technical driver for the density of boreholes.

Water and sludge consolidation between ponds. This provides a means to consolidate sludge and allow vertical boreholes within a dry, empty pond. Transfer of 207A to 207B-North has already been completed with regulator acceptance. Transfers between 207B-North, Center, and South are expected to receive little resistance. Transfer of 207C is infeasible because of capacity in the 207B ponds and technical problems with solubility, pumping, and stratification.

Start treatability studies prior to all new data. This provides schedule recovery of several months with no increased cost. It requires regulator recognition that treatability studies can begin based on considerable historical data and a portion of full quality compliant data for verification. We expect agreement provided that coordination protocols are established to ensure any "surprises" from the last portion of new data are considered.

Use of modular tanks prior to evaporator readiness. This provides the ability to immediately stop the placement of Interceptor Trench Water into 207B-North. It will require regulator approval of a modification to the IM/IRA Decision Document for the Building 910 evaporators and modular tanks. We expect agreement provided acceptable contingency plans are presented for use of other site storage and evaporation equipment.

Use of Building 374 evaporator. This provides enhanced evaporation capacity and increased contingency support. It will require regulator approval of a modification to the IM/IRA Decision Document for the Building 910 evaporators and modular tanks. We expect agreement to use the B-374 evaporators.

Storage of existing pondcrete under wastepile criteria. This provides for RCRA-compliant storage of existing pondcrete without the need for extensive repackaging costs or new tentage. It will require considerable dialogue to determine specific evaluation criteria for compliance under the wastepile guidelines. We expect agreement in concept by the regulators, but considerably more difficulty in agreeing on performance criteria which will allow cost savings compared to the existing storage approach. Lack of any progress on this issue will result in some additional costs for tentage to achieve RCRA compliance, unless delisting or use of Envirocare (see below) is successful.

Store pond water and sludge in relined pond. This allows the DOE to defer processing the sludge into pondcrete until Nevada Test Site Waste Acceptance Criteria is finalized and NTS can accept the waste (projected for FY98). This defers costs and minimizes technical risk of unacceptable pondcrete, but continues concerns about delayed pond closure. We propose to install an additional liner in one or two ponds and then consolidate sludge. The new liner should provide confidence that any leak path or hydraulic driver for contamination migration has been stopped. We expect EPA to support this

approach, but CDH will resist as pond closure is delayed another 5 years and the original Agreement-in-Principle commitment of October 1991 is essentially abandoned. The success of this issue with CDH will hinge on our discussion of budget impacts on other CDH-lead operable units and decision on the supplemental funding request. If the supplemental is denied and FY94 funding remains limited (both likely), then storage in a pond represents the best approach to minimize both technical and environmental risk within budget.

Construction of new lined pond. This allows a similar end result as the previous issue, mid-term storage of sludge while waste acceptance criteria and and NTS approvals are finalized. There may be three relative advantages to this approach. The cost may be less than attempting to reline an existing pond because the new pond would be constructed outside of the Protected Area. The sludge would be removed from the existing ponds allowing remediation under the IAG to proceed. The new pond may be able to support other remediation needs such as for the Landfill (OU7) or Walnut Creek ponds (OU6). This will be a new issue with CDH and EPA and it is expected to be received similar to the relining of Pond 207B-South.

Delisting of pondcrete as a hazardous waste. This would allow immediate disposal of the pondcrete as a low-level waste at Nevada Test Site (NTS). It requires CDH approval of a delisting petition, and probably the concurrence of Nevada state regulators as well. We expect support for the concept from CDH, but significantly more difficulty in establishing the specific, detailed information which will support delisting. Political sensitivities in Nevada may complicate this approach more than local regulator issues. Failure to make progress on this issue will result in a continuation of storage costs for pondcrete at Rocky Flats until FY98.

Use of Envirocare of Utah, Inc. for disposal. This would allow an alternate disposal site prior to NTS in FY98 for pondcrete. It requires Envirocare to modify their permit and license to accept plutonium, and resolution of DOE concerns that facility operations will minimize DOE's long-term liability under CERCLA. We expect support from both CDH and EPA, however political sensitivities in Utah are not known. Many technical issues needed to be worked with Envirocare at the staff level to provide for compliance with DOE Orders or develop the justification for waivers. Failure to make progress on this issue will result in a continuation of storage costs for pondcrete at Rocky Flats until FY98.